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REPORT OF REVENUE OUTLOOK FOR
LAST SIX MONTHS OF FY...

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STATE OF SOUTH CAROLINA
BOARD OF ECONOMIC ADVISORS

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Walter R. Pettiss, Chairman
Andrew J. Crane
Thomas E. Snider, Ph.D.
S. Hunter Howard, Jr., Ex officio
Barbara A. Feinn, Ph.D., Executive Director

Edgar A. Brown Building
Suite 535
1205 Pendleton Street
Columbia, S. C. 29201
803/734-1510

To: South Carolina Budget and Control Board

Subject: Report of Revenue Outlook for Last Six Months
of FY 1989-90

The Board of Economic Advisors is required by Section 11-9-880 of the 1976 South Carolina Code of Laws to provide a synopsis of the revenue outlook for the last six months of the fiscal year on December 31st of each year. The synopsis for December 31, 1989 is provided herein with supporting tables.

As the 86th month of economic expansion begins in January, the outlook for the next six months seems likely to follow the pattern that had been anticipated. Guided by the fine tuning that has been the trademark of the Greenspan chairmanship, the Federal Reserve appears to have been successful in keeping the economy from overheating and from experiencing a hard landing. The prospect as viewed by most mainstream economists is for a continuation of the expansion after a close escape from a recession. Real growth is expected to be moderate at 1.5% with inflation in the 4.5% range. The unemployment rate is forecast at or near 5.5%.

As was anticipated even before Hugo, the South Carolina economy showed signs of slowing, matching the trend of the national economy. From indicators such as employment growth and the unemployment rate, the stronger performance of the South Carolina economy was beginning to moderate and to converge with that of the national economy. As an example,

the unemployment rate in South Carolina in June was at 4.6% compared to that in the U.S. at 5.3%. By September, the unemployment rate in South Carolina measured prior to Hugo reached 5.2% with that in the U.S. remaining at 5.3%.

Following Hugo, it was anticipated that monthly patterns might be deceptive. This has already been confirmed by the erratic readings of the economy as reflected in the revenues of the last few months. The revenue results released earlier this month show an economy overcoming the destabilizing effects of Hugo and making progress in getting back on track, all the while in an environment superimposed on it by a national economy approaching a soft landing, if not actually touching down.

It does appear that the shock effects of Hugo are about over and the positive effects will become clearer by Spring. At that time, revenues should resume the pattern that had been anticipated prior to Hugo. The positive effects may be somewhat tempered by coinciding with the refund period.

It is the intention of the Board of Economic Advisors to review the data as it is released within this context. Given the great disruptions Hugo caused in many areas of South Carolina, it is encouraging that the forecast made immediately after Hugo seems to be materializing.

On February 15, with two more months of data and a closer indication of the national economy in the first quarter and the strength of the recovery from Hugo evaluated, an assessment of revenues for the remainder of the fiscal year in relation to the estimate will be made. Until that time, the Board of Economic Advisors sees no basis for change in the estimate of \$3355 million for Fiscal Year 1989-90.

Board of Economic Advisors

W.R.P.

December 31, 1989

TABLE I

GENERAL FUND REVENUES
Forecast FY 1989-90 and FY 1990-91
(In Millions of Dollars)

	ACTUAL FY 1988-89	ESTIMATE FY 1989-90	ESTIMATE FY 1990-91
TOTAL GENERAL FUND (1)	3142.5	3355.0	3538.5
Total Regular Sources (1)	3098.0	3314.0	3494.5
Sales Tax (1)	1085.6	1128.1	1187.0
Individual Income Tax	1248.1	1390.8	1485.1
Corporation Income Tax	211.2	222.0	237.4
All Other	553.1	573.1	585.0
Miscellaneous Sources	44.5	41.0	44.0
Education Improvement Fund	272.318	282.025*	296.750*
Interest on Education Improvement Fund	1.771	1.900	1.900
TOTAL	274.089	283.925	298.650

	<u>RATES OF CHANGE</u> **	
TOTAL GENERAL FUND	6.8%	5.5%
Total Regular Sources	7.0	5.4
Sales Tax	3.9	5.2
Individual Income Tax	11.4	6.8
Corporation Income Tax	5.1	6.9
All Other	3.6	2.1
Miscellaneous Sources	-7.8	7.3
Education Improvement Fund	3.6	5.2
Interest on Education Improvement Fund	7.3	---
TOTAL	3.6	5.2

(1) Net of Education Improvement Fund.

* One-fifth of total sales tax.

** Percent change based on unrounded figures.

Board of Economic Advisors
November 1, 1989

TABLE II

REVIEW OF GENERAL FUND REVENUE COLLECTIONS AND STATE INCOME GROWTH

FISCAL YEARS		PERSONAL INCOME AT ANNUAL RATES (MILLIONS OF \$)	PERCENT CHANGE PRIOR YEAR QUARTER	CUMULATIVE GENERAL FUND REVENUE (MILLIONS OF \$)	PERCENT CHANGE PRIOR YEAR QUARTER	RATIO OF REVENUE GROWTH TO INCOME GROWTH

1986-87						
1986:	3	38,505	7.18	665.543	5.42	.755
	4	39,203	6.93	1,364.079	8.73	1.260
1987:	1	40,076	6.60	1,990.810	8.02	1.215
	2	40,861	7.46	2,692.754	7.31	.980
1987-88						
1987:	3	41,635	8.13	726.531	9.16	1.127
	4	42,914	9.47	1,472.082	7.92	0.836
1988:	1	43,252	7.93	2,127.654	6.87	0.866
	2	44,474	8.84	2,938.379	9.12	1.032
1988-89						
1988:	3	45,304	8.81	781.428	8.11	0.921
	4	46,389	8.10	1,561.795	6.09	0.752
1989:	1	47,897	10.74	2,290.089	7.63	0.710
	2	48,936	10.03	3,142.455	6.95	0.693
1989-90						
1989:	3	49,156	*	785.029	0.46	0.054
	4	50,004	*	1,648.400	*	0.712
1990:	1	50,683	*	2,422.900	*	1.000
	2	51,875	*	3,355.000	*	1.127

*: Forecasts, Board of Economic Advisors, November 1, 1989.

REVENUE FORECASTING PROCEDURES
BOARD OF ECONOMIC ADVISORS
FISCAL YEARS 1990 AND 1991

The procedures and methodology of the Board of Economic Advisors in the preparation of the Revenue Outlook for Fiscal Years 1989-90 and 1990-91 as of December 31, 1989 and January 1, 1990 involved three major stages beginning with preparation of the November 1, 1989 First Official Forecast for FY 1990-91: 1) providing the economic background and setting at the national and State levels for reporting on the revenue outlook; 2) interpreting recent and historical revenue relationships; and 3) evaluating the economic impact of Hurricane Hugo on income and revenues.

The Board members consulted as in the past with experts and professional economists for economic intelligence gathering. A special meeting of the Board of Economic Advisors on October 4, 1989 brought together Board members, in-State economists and South Carolina members of the National Advisory Council. The purpose of the meeting was to discuss the effects of Hurricane Hugo on the State's economy and revenues for this fiscal year and next and to determine the impact on the revenue estimates due November 1.

A regularly scheduled meeting was held on October 26, 1989 in Columbia with the National Advisory Council to the Board of Economic Advisors. Present at the meeting were: Dan M. Bechter, Ph.D., Vice President, Federal Reserve Bank of Richmond, representing Advisory Council member J. Alfred Broadus, Jr., Ph.D., Senior Vice President and Director of Research, Federal Reserve Bank of Richmond; Ben E. Laden, Ph.D., President, BEL Associates; James A. Morris, Ph.D., Distinguished Professor of Economics Emeritus, University of South Carolina; Ronald P. Wilder, Ph.D., Chairman, Department of Economics, University of South Carolina; David A. Wyss, Ph.D., Senior Vice President and Chief Financial Economist, Data Resources, Inc.; and Bruce Yandle, Ph.D., Alumni Professor of Economics, Clemson University. Bruce L. Williams, formerly Corporate Economist, Southern Bell Telephone Company, and currently Manager, Statistics and Econometrics, BellSouth Services, resigned from the Advisory Council effective August 31, 1989, following a reassignment in an area other than forecasting. Bethel Minter, First Vice President and Economist, Sun Trust, Atlanta, Georgia, and John L. Harris, Ph.D., Director of Economic and Energy Forecasting, Carolina Power and Light Company, Raleigh, North Carolina, also participated in the meeting.

The resources of the national forecasting groups by which the SCOPE model, when operative, and other forecasts are driven, Data Resources, Inc., Evans Economics, Inc., and WEFA, Inc., were available weekly and monthly to Board members and staff. Materials from a variety of sources--international, national and State publications--were also made available to Board members and staff. In addition, there was Board interaction by the Chairman and the Executive Director with numerous outstanding national economists at the 31st Annual Meeting of the National Association of Business Economists held September 24-27, 1989 in San Francisco, California and BEA staff representation at the 44th Annual FTA Conference on Revenue Estimating and Tax Research held October 22-25, 1989 in Orlando, Florida.

BRIEF OVERVIEW OF THE SCOPE MODEL

The SCOPE (South Carolina Operations Planning and Evaluation) Model was initiated in 1972 in the Office of Chief Economist (originally in the Governor's office). It was designed and operated as a policy and forecasting tool for top level executive, legislative and management decision making. SCOPE is an econometric model designed to reflect the South Carolina economy and to forecast the performance of major economic variables in the State, particularly tax revenues, employment and income. The model is based on a framework of economic activity in the State relative to national economic activity with approximately 85 exogenous national variables provided by leading national forecasting services such as Data Resources, Inc., the WEFA Group, and Evans Economics, Inc.

The SCOPE core model consists of 63 equations, of which 55 are stochastic* and eight are identities. SCOPE attempts to reflect the diversity of the South Carolina economy by including 20 industrial sectors of manufacturing and nonmanufacturing employment, and a series of equations for wages, personal income, unemployment, taxable sales and State tax revenue.

Durable Manufacturing Employment

The durable manufacturing employment block consists of six stochastic equations for the major industries in the State as reported by the South Carolina Employment Security Commission. The employment equations for each separate industry are expressed as a function of a national consumption expenditure index appropriate for that particular industry, a national industrial production index corresponding to that industry and the national level of employment in that industry. The durable employment forecasts include the following industries: Lumber and Products, Stone, Clay and Glass, Fabricated Metal Products, Electrical and Nonelectrical Machinery, and Other Durables which includes Furniture and Fixtures, Instruments and Related Products.

Nondurable Manufacturing Employment

The nondurable manufacturing employment block consists of seven stochastic equations for the major nondurable industries in the State. Like the durable block, the employment equation for each industry is expressed as a function of a national consumption index appropriate for that particular industry, a national industrial production index for that particular industry and the national level of employment in that industry. Employment forecasts are available for each of the following nondurable industries: Food and Kindred Products, Textile Mill Products, Apparel, Paper, Printing and Publishing, Chemicals, and Other Nondurables, such as Rubber and Miscellaneous Plastics Products.

* Stochastic is defined as a type of modeling for time series analysis explaining future probability from historical experience.

Nonmanufacturing Employment

The nonmanufacturing employment block is disaggregated into seven stochastic equations: Construction, Transportation and Public Utilities, Services, Trade, Finance-Insurance-Real Estate, State and Local Government, and Federal Government. Employment growth in these industries is specified as functions of State population, national employment in these industries and national consumption indices.

Personal Income

The personal income block is composed of 11 equations, one equation for the unemployment rate, and ten additional equations for each of the ten major components of personal income as published by the Bureau of Economic Analysis, Department of Commerce. These equations are specified as functions of their respective national and State income and employment variables. In addition, equations are estimated for wage and salary disbursements for all major industries and are specified as functions of national wage trends and State employment levels.

Revenues

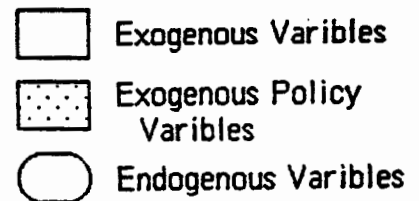
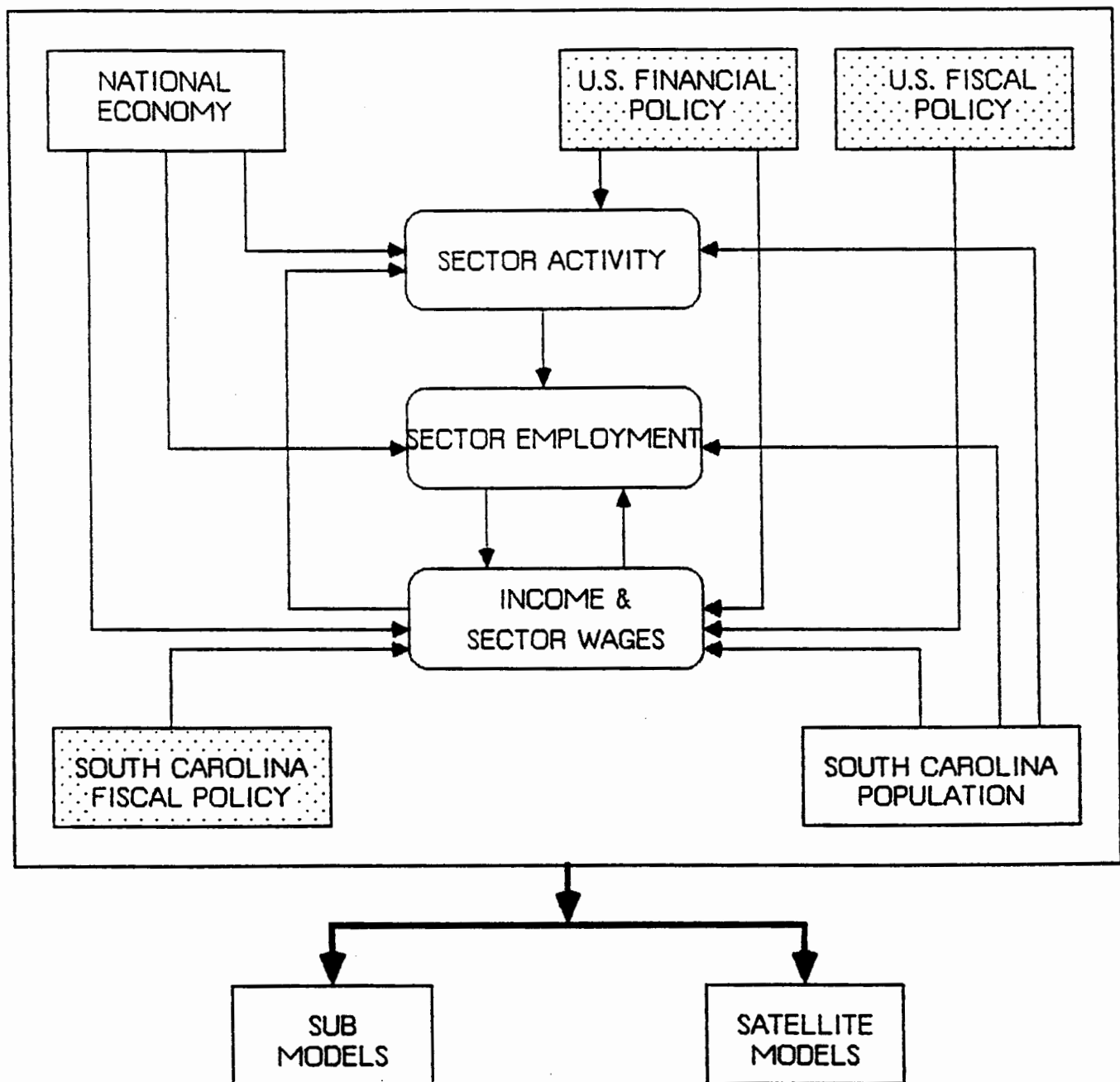
The revenue section of the model emphasizes four major stochastic Regular Revenue Sources equations: 1) South Carolina corporate income tax, 2) South Carolina individual income taxes, 3) South Carolina retail sales tax, and 4) all other taxes. These equations are individually specified as functions of aggregate employment and income with their respective coefficients and constants. In addition, there are two stochastic equations for taxable sales and refunds.

The model is currently undergoing major revisions to incorporate recently developed econometric techniques and to reflect significant structural changes in the national and South Carolina economies. The core economic model is near completion and the reformulation of the revenue model is in progress.

Board of Economic Advisors
December 31, 1989

SCOPE MODEL

SOUTH CAROLINA OPERATIONS, PLANNING & EVALUATION MODEL





STATE OF SOUTH CAROLINA
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1205 Pendleton Street
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REVENUE OUTLOOK - FY 1990-91

AS OF JANUARY 1, 1990

The Board of Economic Advisors is required by Section 11-9-880 of the 1976 South Carolina Code of Laws to consider adjustments to the official revenue forecast for the 1990-91 fiscal year on January 1, 1990. It has done so. It determined that while forecasts for FY 1990-91 revenues stand largely on their own, they are also influenced by the level of anticipated collections of FY 1989-90. Therefore, no adjustment in the forecast of \$3538.5 million made on November 1, 1989 is warranted until December and January revenue data are available, a clearer indication of the direction of the economy in the first quarter of 1990 emerges, and the extended implications of Hugo can be determined.

Board of Economic Advisors

W.R.P.

January 1, 1990

TOTAL GENERAL FUND REVENUES
 QUARTERLY ESTIMATES
 Fiscal Years 1989-90 and 1990-91
 (In Millions of Dollars)

	FY 1989-90 -----	FY 1990-91 -----
FIRST QUARTER	785.0	888.2
SECOND QUARTER	1648.4	1765.7
THIRD QUARTER	2422.9	2590.2
FOURTH QUARTER	3355.0	3538.5

PERCENT OF TOTAL REVENUES
 COLLECTION BY QUARTER

	FY 1989-90 -----	FY 1990-91 -----
FIRST QUARTER	23.4	25.1
SECOND QUARTER	25.7	24.8
THIRD QUARTER	23.1	23.3
FOURTH QUARTER	27.8	26.8

Board of Economic Advisors
 November 1989